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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Dietmar Kaiser

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EXAMINER

STELLING, LUCAS A

ART UNIT

PAPER NUMBER

1797

NOTIFICATION DATE

DELIVERY MODE

12/10/2008

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

ADIPFDD@bipc.com

Office Action Summary	Application No. 10/560,240	Applicant(s) KAISER, DIETMAR	
	Examiner Lucas Stelling	Art Unit 1797	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 August 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-3 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 5,203,999 to Hugues (“Hugues”).

3. As to claims 1, Hugues teaches a liquid treatment means (**abstract**) comprising a separation device (**2 and 4, See Fig. 1**) for a soiled liquid mixture which as been supplied with intaken air

and a cleaned liquid tank (**1**) which is connected to it for cleaned liquid, characterized in that the separation device and the cleaned liquid tank form a structural unit and the separation device for the soiled liquid mixture is surrounded at least in areas by the water tank for the cleaned water (**See Figs. 1**).

4. As to claim 2, the two chambers are arranged essentially concentrically (**See Figs 1**).

5. As to claim 3, the separator has a sump reservoir for the settled particulate material (**4, see Fig. 1**).

6. Claims 1--4, 6, 8, 9, 11, 15 and 16 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 5,312,551 to Perron et al. (“Perron”).

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7. As to claim 1, Perron teaches a water treatment means, especially for a sewer cleaning vehicle **(abstract, and Fig. 1)**, comprising

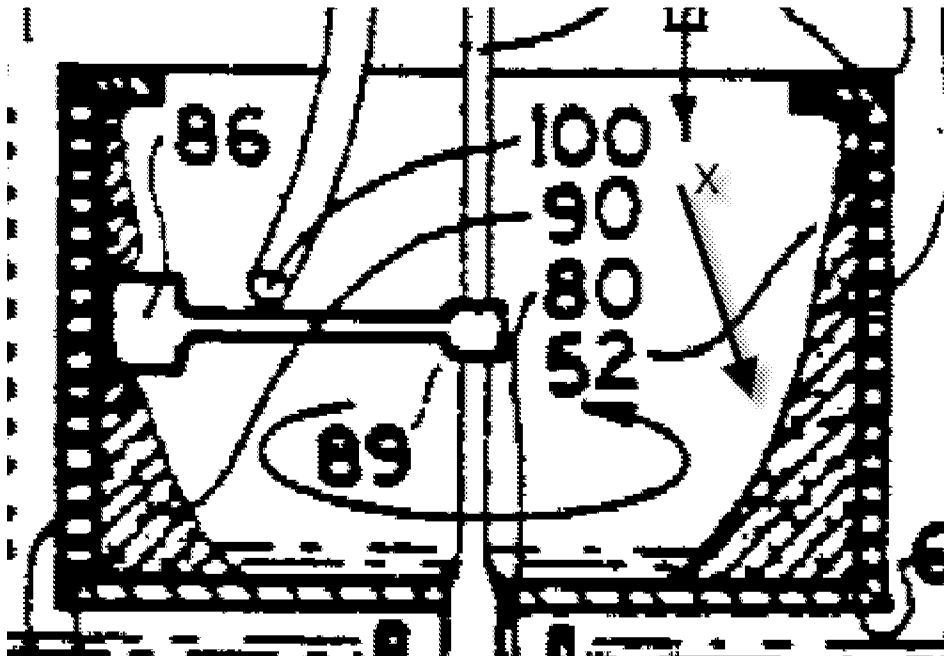
a separation device **(56, 58 and 60, combined, see Fig. 1, and col. 2 lines 45-50)** for a mud-water mixture which has been supplied with intaken air and

a water tank **(74 and 69, see Fig. 1, and col. 2 lines 55-60)** which is connected to it for cleaned water,

characterized in that the separation device and the water tank form a structural unit and the separation device for the air-mud-water mixture is surrounded at least in areas by the water tank for the cleaned water **(See Fig. 1, and col. 2 lines 50-65)**.

8. As to claim 2, the Perron shows that the separating centrifuge and the stationary shield, which forms the cleaned water tank are concentrically arranged **(See Fig. 1)**.

9. As to claim 3, Perron provides a reservoir area in the separation device for the collection of mud during the separation. See Figure below where "X" points to the reservoir area in the separation device for collection of the settled mud.



10. As to claim 4, Perron teaches the device of claim 1, and the separation device axially penetrates the water tank **(See Fig 1, centrifuge penetrates through tank bottom 69)**.

11. As to claim 6, Perron teaches the device of claim 1, and the water tank has a bottom which will allow water to separate from air, with the water drained off **(68)** and the air escaping through the top **(54)**.

12. As to claim 8, Perron teaches the device of claim 1, and the water tank has an outlet which supplies a pump (**See Fig. 1 and col. 2 lines 50-60**).

13. As to claim 9, Perron teaches the device of claim 1, and also teaches that there is a valve **(43 or 48 See Fig. 1)** and a pump **(24, Fig. 1)** operable to control the fluid transfer from the reception tank to the separator. The control of the mixed fluid will

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inherently control the air flow in or out of the separator because air entrained in the liquid is the source of the air.

14. As to claim 11, the mobile support unit is fully capable of cleaning sewers (**See abstract, septic systems are specifically contemplated**).

15. As to claim 15, Perron teaches a water treatment means, especially for a sewer cleaning vehicle (**abstract, and Fig. 1**), comprising

a separation device (**56, 58 and 60, combined, see Fig. 1, and col. 2 lines 45-50**) for a mud-water mixture which is to be separated, and an outlet for connection to a vacuum pump (**68**); and

a water tank (**74 and 69, see Fig. 1, and col. 2 lines 55-60**) which is connected to it for cleaned water,

wherein the interior of the separation device is separated from the interior of the water tank, and the separation device and the water tank form a structural unit in which the separation device for the air-mud-water mixture is surrounded at least in areas by the water tank for the cleaned water (**See Fig. 1, and col. 2 lines 50-65**).

16. As to claim 16, Perron teaches a water treatment means, especially for a sewer cleaning vehicle (**abstract, and Fig. 1**), comprising

a separation device (**56, 58 and 60, combined, see Fig. 1, and col. 2 lines 45-50**) for a mud-water mixture ; and

a water tank (**74 and 69, see Fig. 1, and col. 2 lines 55-60**) which is connected to it for cleaned water,

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wherein the separation device and the water tank for a structural unit where the separation device for the air-mud-water mixture is surrounded at least in areas by the water tank for the cleaned water, and wherein one section of the water tank is a water separator for water which is entrained with air (**See Fig. 1, and col. 2 lines 50-65, the bottom reservoir of the tank, 74 and 69, in Perron will function as a water settling area where entrained gasses will inherently come out of solution and be removed through the top 54 and water will be drawn off through the outlet 68).**

Claim Rejections - 35 USC § 103

17. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

18. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

19. Claims 5, 10, and 12-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Perron.

20. As to claim 5, Perron has an inlet and an open top which allows air to escape (**See Fig. 1, 48 is an inlet and the top is open 54**). The position of the inlet is an

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obvious rearrangement of parts used to supply the mixture to the separation device and it is not critical to the functioning of the prior art device. See MPEP 2144.04(IV)(B) and MPEP 2144.04(VI)(C).

21. As to claim 10, the use of a four-way valve to control the flow of fluid in the device in Perron is not expressly taught, however the use of such valves are known in the art, and their use in Perron would have been an obvious matter of engineering design choice and not particularly critical to the functioning of the device.

22. As to claim 12, Perron teaches the device of claim 11, and the separator has his axis positioned vertically (**See Fig. 1**), the separator is near the vacuum pump (**24**), and between the cab (**28**) and the mud tank (**20**).

23. As to the limitations of claim 13, these are functional limitations of an apparatus, which ordinarily are not afforded patentable weight. See MEP 2114.

24. As to claim 14, Perron teaches the device of claim 8, and teaches that the vacuum pump is a rotating blade pump (**See col. 2 lines 35-37**). The use of liquid ring pumps are known to those skilled in the art as a low friction pump for drawing a vacuum. Therefore, it would have been obvious to a person of ordinary skill in the art at the time of invention to use a liquid ring pump because of its low friction design.

25. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Perron in view of U.S. Patent No. 5,968,370 to Trim ("Trim").

26. As to claim 7, Perron teaches the arrangement of claim 6, but teaches the use of a centrifuge instead of a cyclonic separator. Trim teaches that centrifuges and

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hydrocyclones are equivalent separating devices when processing sludge-type substances (**Trim col. 10 lines 20-34**). Under Rationale B of *KSR v. Teleflex*, the substitution of a cyclonic separator for the centrifuge in Perron constitutes a simple substitution of one known element (**the cyclone**) for another (**a centrifuge**) to obtain predictable results (**both cyclones and centrifuges separate particles from a liquid, so their separating abilities will be substantially similar**). Therefore, it would have been obvious to a person of ordinary skill in the art to substitute the centrifuge in Perron with the cyclonic separator as a predictable alternative. See MPEP 2143(B), MPEP 2144.06(II), and also 2144.07.

Response to Arguments

27. Applicant's arguments filed 8-13-08 have been fully considered but they are not persuasive.

28. Pertaining to the rejection over Hugues, applicant argues that the casing does not constitute a tank, and that Hugues contemplates using oil, while applicant's invention operates on water. In response, the casing is being interpreted as a tank because it temporarily contains one of the products of the separation. Also, material worked on by an apparatus is not given patentable weight. See MPEP 2115. With respect to applicant's argument that Hugues "teaches away," applicant is reminded that the grounds for rejection of claim 1 over Hugues is 35 USC 102. Arguments for "teaching away" are only relevant to obviousness rejections made under 35 USC 103(a). See MPEP 2145.

29. Pertaining to the rejection over Perron, applicant argues that because Perron has an opening (**Perron 68**), then the combined side (**74**) and bottom (**69**) do not constitute a tank. In response, the combined side and bottom is a tank because it collects the liquid before dispensing it through the outlet (**Perron 68**). Also, the combined side and bottom surround the centrifuge separator (**See Fig. 1**).

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lucas Stelling whose telephone number is (571)270-3725. The examiner can normally be reached on Monday through Thursday 12:00PM to 5:00PM.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Duane Smith can be reached on 571-272-1166. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

las 12-05-08

/Matthew O Savage/
Primary Examiner, Art Unit 1797